

## Objects in Free Fall

What factors affect a falling object? Perform the following simple activity to begin learning about the forces that act on falling objects.

1. Stand beside your desk. Hold a sheet of notebook paper level at eye level. Release the sheet of paper and watch it fall. Describe the motion of the paper.
2. Hold a sheet of notebook paper that has been crumpled into a tight ball at eye level. Release the crumpled paper and watch it fall. Describe the motion of the paper.
3. How do the motions of the flat sheet of paper and the crumpled ball of paper compare? What forces do you think are acting on each sheet of paper?

### ANSWERS

1. The paper flutters slowly to the ground.
2. The crumpled sheet of paper falls straight to the ground.
3. The flat sheet of paper fluttered slowly to the ground whereas the crumpled ball of paper fell more quickly to the ground and followed a straight-line path. Do not assess students on correctly identifying the two opposing forces on the paper; accept any reasonable response. The two opposing forces are gravity and air resistance.